

Background for Farm Tour

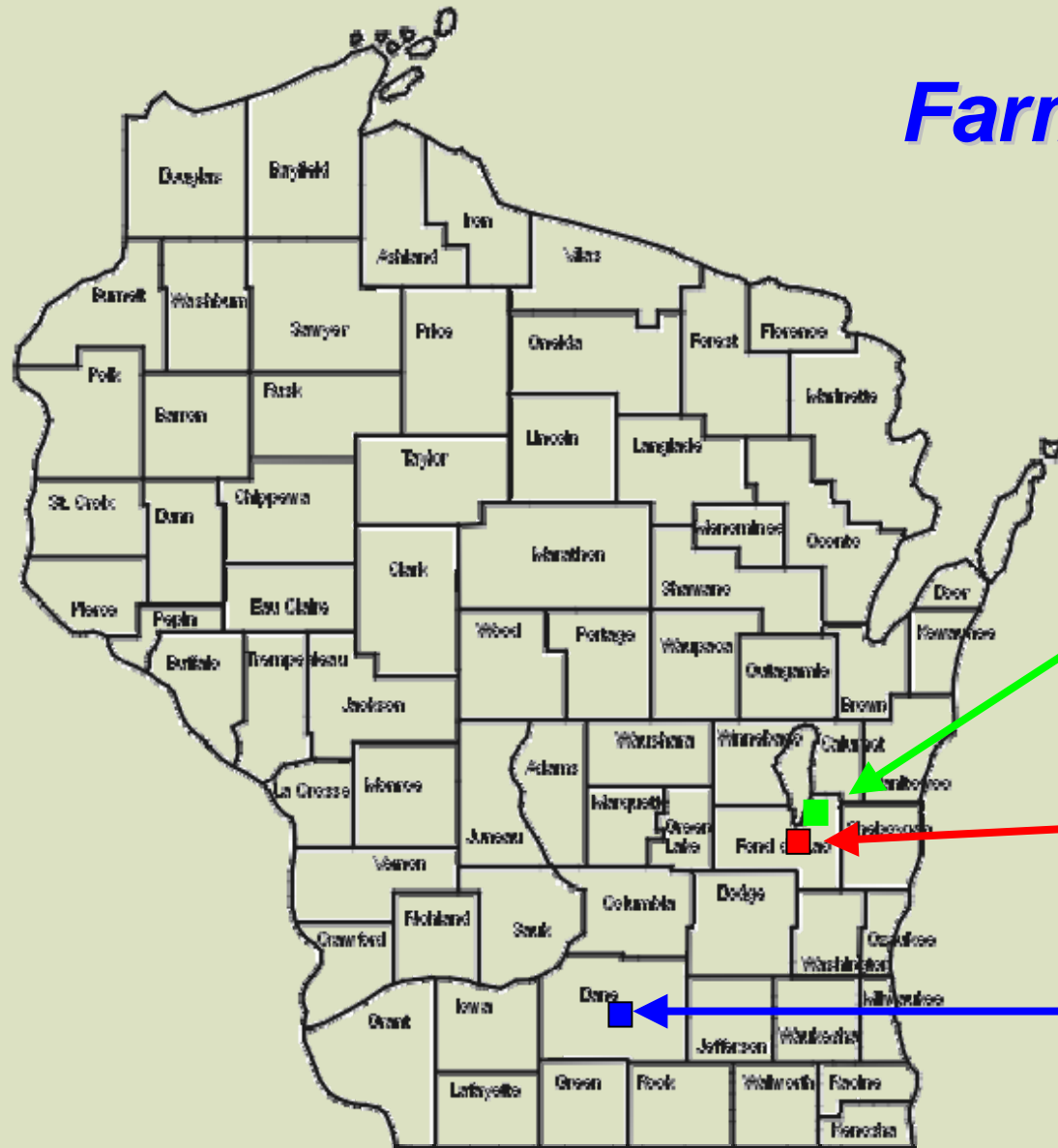
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Farm Tour Sites



Lake Breeze Dairy

Vir-Clar Farms

Madison



Vir-Clar Farm
Fond du Lac
mesophilic
complete mix, 340 kW
Biogas Nord GmbH





Vir-Clar Digester Facts

- **1,350 Holstein cow herd size**
- **20 gallons/cow/day manure**
- **Manure scrape collection system**
- **Complete-mix digesters, 2 each: 22 m (i.d.) x 7 m height**
- **Flexible digester cover**
- **8% - 9% total manure solids concentration**
- **40% (est.) volatile destruction rate**
- **350 kW spark ignition IC engine-generator**
- **Extra heat will be utilized for milking parlor, calf barn, floors in return lanes. Possibly a greenhouse in future.**

Lake Breeze Dairy
Malone, WI
mesophilic
modified plug-flow, 600 kW
GHD, Inc.



Solids Processing



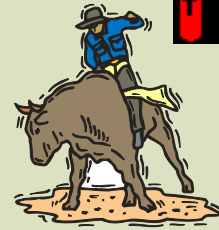


Lake Breeze Digester Facts

- **3,000 Holstein cow herd size**
- **35 gallons/cow/day manure & parlor water**
- **Manure flush collection system**
- **Modified plug-flow digester: 16(H) x 186(L) x 144(W) ft.**
- **Rigid digester cover**
- **8% total manure solids concentration**
- **80% of total solids are volatile**
- **65% (est.) volatile destruction rate**
- **9.7 ft³ (est.) biogas per lb. of volatile solids destroyed**
- **111,000,000 ft³ (est.) biogas production per year**
- **2 x 300 kW spark ignition IC engine-generators**
- **Extra heat will be utilized for milking parlor, shop, floors in holding area, and special needs area**

Site Courtesy

- Wear bio-security boots before leaving buses
- No smoking
- Only visit animals with owners permission
- Board buses on time



focus on energysm

The power is within you.



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